



United States Department of the Interior  
GEOLOGICAL SURVEY

P.O. BOX 1716  
CARLSBAD, NEW MEXICO 88220

IN REPLY  
REFER TO:

December 19, 1973

Memorandum

To: Regional Conservation Manager, Central Region  
Denver, Colorado

From: Area Mining Supervisor  
Carlsbad, New Mexico

Subject: Proposed Mining Plan for The Anaconda Company's P-9-2  
uranium mine on Laguna Indian Tribal lands near Laguna,  
New Mexico

Confidential Claim Retracted

Authorized by: SC

Date: 6/24/13

Attached are 2 copies of the above plan (with maps), 2 copies of the EIA, 2 copies of the geologic report, 2 copies of our transmittal memo for the plan to BIA, 2 copies of the BIA memo of approval and 2 copies each of several other related documents.

The plan is for a new underground mine, and it is submitted for your review and determination as to whether it is a major Federal action or not.

I concur with the recommendations contained in the analysis.

*R. S. Fulton*

R. S. Fulton  
Area Mining Supervisor

PBM:nb

Attachments:

RECEIVED  
DEC 21 1973

CONSERVATION MANAGER  
CENTRAL REGION

CONFIDENTIAL



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POL-EPA01-0006007



United States Department of the Interior  
GEOLOGICAL SURVEY  
P.O. BOX 1716  
CARLSBAD, NEW MEXICO 88220

IN REPLY  
REFER TO:

December 19, 1973

Memorandum

To: Kenneth L. Payton, Superintendent, Southern Pueblos Agency,  
Albuquerque, New Mexico

From: Area Mining Supervisor  
Carlsbad, New Mexico

Subject: The Anaconda Company's proposed mining plan for its "P-9-2  
Adit Mine Underground Project" on Laguna Tribal uranium  
mining lease No. 4

Attached for your files is a copy of our environmental impact  
analysis for the above plan.

*Philip B. Mudgett*

Philip B. Mudgett  
Mining Engineer  
for Area Mining Supervisor

PBM:nb

ENVIRONMENTAL IMPACT ANALYSIS  
of  
PROPOSED MINING PLAN  
for  
THE ANACONDA COMPANY'S  
P-9-2 UNDERGROUND URANIUM MINE  
VALENCIA COUNTY, NEW MEXICO

LAGUNA TRIBAL LEASE  
No. 4

Proposed Action

The proposed action consists of a mining plan submitted under the provisions of 30 CFR Part 231.10 of the Federal regulations by The Anaconda Company on September 19, 1973. The plan is for a small underground mining operation near the southeast margin of the company's large Paguate open-pit mine on Laguna Tribal lease No. 4. Scheduled to start mining ore November 1, 1973, the 100 to 150 tons per day operation should be completed in May 1975.

A multilayered group of 13 small southeasterly trending tabular ore bodies lie within the Jackpile unit of the Jurassic Morrison Formation at an average depth of about 150 feet below the land surface. They extend southeasterly from the Paguate pit crest limit for a distance of nearly  $\frac{1}{2}$  mile. Since the estimated ore reserves are too small to justify the cost of open-pit mining, they will be developed through three separate adits laterally advanced from near the bottom of a small mined out open-pit. The small pit is connected to the Paguate pit by a jointly used haulage ramp. Each adit will extend for at least 1,000 feet into the walls of the 150-foot deep pit.

The adits will be driven with a mechanical mining machine whenever possible, and by drilling and blasting when necessary.

Ore extraction will be accomplished through raises from the trackless adit levels by sub-level room and pillar stoping with conventional mining equipment, and by longwall stoping with a mechanical mining machine when feasible.

Major items of surface equipment will include 1-600 CFM diesel-powered air compressor, 1-250 KW diesel-powered generator and 3-25 T diesel-powered dump trucks, underground items will include 2-5 T diesel-powered trucks, 2-15 HP electrically-powered slusher hoists, 3 jackleg-mounted pneumatic jackhammers, 1-Alpine Miner and 2-35,000 CFM, 25 HP electrically-powered axial flow ventilating fans.

The ore from this small operation will supplement that being produced from the company's nearby Paguate and Jackpile open-pit mines situated on adjoining Laguna Tribal lease No.1. Currently, nearly 2,400 TPD

of relatively highgrade ore are being transported about 50 miles by rail (AT&SF) to the company's 3,500 TPD acid-leach concentrator near Grants, New Mexico.

Location and Natural Setting.

The involved lands include about 16 acres within T. 10 N., R. 5 W., section 4: NW $\frac{1}{4}$ , NMFM, Valencia County, New Mexico. They are located in the Laguna Mining District about 8.5 miles north of Laguna, New Mexico, on the Laguna Indian Reservation. The tract is situated on the gently rolling terrain atop North Oak Canyon Mesa about  $\frac{1}{4}$  mile north of State Highway 275 at an elevation of nearly 6,100 feet above sea level.

The climate is semiarid, the annual precipitation ranging from 4 to 18 inches and averaging about 9 inches per year. The summers are generally hot, the winters moderately cold and the mean yearly temperature is about 53° F.

No sizable natural drainageways are present on the tract, and all surface water run off flows into the open-pit workings where it is impounded and evaporated. Drill hole data indicate the absence of ground water well below them. The thin (12 inches), sandy mantle of top soil supports a sparse growth of native grasses, cacti and desert shrubs spotted by occasional juniper trees. Past drilling activities have impressed the area with many drilling sites and a network of access roads.

The leased lands are used for mining purposes with the exception of a small centrally located housing area for about 30 key mine employees that is well removed from the surface mining activities. The property is posted and fenced at all points of easy access, and a security guard station on the principal access road is manned 24 hours a day.

The Laguna indian village of Pagate (1,253 pop. 1968 census) overlooks the leased area from an elevated site about 1 mile northwest of the planned project. About 90 percent of the company's 372 mine operations personnel are Laguna indians, and nearly 20 percent of them reside in Pagate.

No indian ruins, burial or religiously significant sites are situated on or near the leased lands according to official company

and Bureau of Indian Affairs, Southern Pueblos Agency sources of information. Recreation sites, parks, monuments, historical sites and unique physical features were also reported to be absent. Although surrounded by a scenic area, views thereof are not affected by the proposed mining installations because nearly all of them are either underground or situated on or near the floor of an open-pit excavation well below the existing land surface. Only the ventilating fan installation for one of the two ventilation shafts will rise to the height of about 8 feet above the ground.

Owing to the intense surface mining activity on a two-shift basis and the nonexistence of surface water in the general vicinity of the P-9-2 mine site, wild life on and near the affected lands is apparently limited to an inconsequential number of small commonplace rodents, lizards, insects, arachnids and transient small birds. The small area of the original land surface to be affected by the plan, less than 1 acre, and the shallow depth to which it will be disturbed is expected to hold displacement and destruction of them to an inconsiderable number. No endangered species are known to be present.

Unfortunately, little scientific or technical literature about the general area exists. The few relevant and available publications are mostly of geological character.

#### Effect on The Environment

All of the surface plant facilities, the 3 adit portals and the waste dump will be contained within the small mined out open-pit. One of the two ventilation bore holes will be located in the bottom of a declined haulage ramp for the Paguate pit. Accordingly, damage to the involved lands will be limited to that resulting from the construction of a 15'x200' access road and the preparation of a  $\frac{1}{2}$  acre drilling site for a second ventilation bore hole located away from all pit workings. The necessary grading and leveling of the land surface with a motorized grader will disturb the top soil to a depth of about 6 inches with the consequent destruction of the vegetation on a total area of less than 1 acre in size.

A geological review of the proposed plan did not disclose any geologic hazards that might cause additional environmental damage during or after completion of the mining operations. [Also, the intended methods of ground support in the mine should be adequate to prevent surface subsidence above the underground workings. However, mined-out areas will be waste-filled if necessary to prevent excessive caving.

In the absence of ground water, and the diversion of surface run off water to a collection pond on the floor of the small open-pit, water in the underground workings will consist of the negligible quantity that will be used in pneumatic drilling.

Sanitation facilities will include chemical toilets with waste disposal provided for in established sewage lagoons. Suitable change house facilities are available at nearby machine shops and mine office buildings for the open-pit operations.

The possibility of any significant amount of air pollution is remote because of the absence of any sizable contributory sources in either the surface plant installations or the underground workings. The formation of road dust from ore and waste haulage on the surface will be kept to an acceptable minimum by spraying water from the collection ponds on the roads with truck mounted sprinklers. Radioactive gas and particulate materials in the mine will be removed with an efficient ventilating system in compliance with MESA standards and harmlessly dissipated in the atmosphere.

No unusual health or safety problems are expected in any phase of the operations.

Nearby Paguate village and its inhabitants should not be affected by the mining operations, nor should the tribal economy be changed since the ore therefrom is needed to maintain the present production schedule.

#### Alternatives To The Proposed Action

The only alternative to the plan would be to refrain from exploiting the ore bodies. This substitute, presuming it could be legally accomplished, would result in an undesirable reduction of the Tribal income.

No other feasible mining method or modification of the proposed method would reduce the possible damage to the environment. Any form of open-pit mining would be uneconomical and would also disturb a much greater area of the land surface. Any modification of the planned method could only result in further surficial damage from the necessary construction of several production shaft sites.

### Unavoidable Adverse Environmental Effects

*S. 10/11/84*  
The only unavoidable adverse effect of the proposed action on the environment of any consequence will be the disturbance of less than one acre of the involved land surface to a depth of about 6 inches during the construction of an access road and one drilling site, with the resultant destruction of vegetation thereon.

*11/17/84*  
However, upon completion of operations, all disturbed or denuded areas will be rehabilitated by the lessee to the satisfaction of the Agency Superintendent as provided for under Section 16 of the lease.

The top soil will be replaced if necessary, and the vegetative cover will be reestablished by cultivation and reseeded as prescribed by the Bureau of Indian Affairs. Adequacy of the work and the results will be determined through post-project inspections by an authorized representative of the BIA, Southern Pueblos Agency.

In addition, all mine openings will be filled and/or sealed after written approval has been issued to the lessee by the Area Mining Supervisor. The work will be accomplished according to the Supervisor's recommendations to the Agency Superintendent subject to his approval as prescribed in the lease. This post-project work will be periodically inspected for adequacy during its execution by the monitoring mining engineer who will submit reports to the Mining Supervisor and the Agency Superintendent regarding its acceptability.

### Recommendations

*Keep*  
From the foregoing, and in the absence of any adverse comments or controversial issues, it is concluded that the proposed action should not be considered as a major Federal action. Accordingly, it is recommended that it be determined that the plan does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102(2)(c).

*Philip B. Mudgett*

Philip B. Mudgett  
Mining Engineer  
U. S. Geological Survey

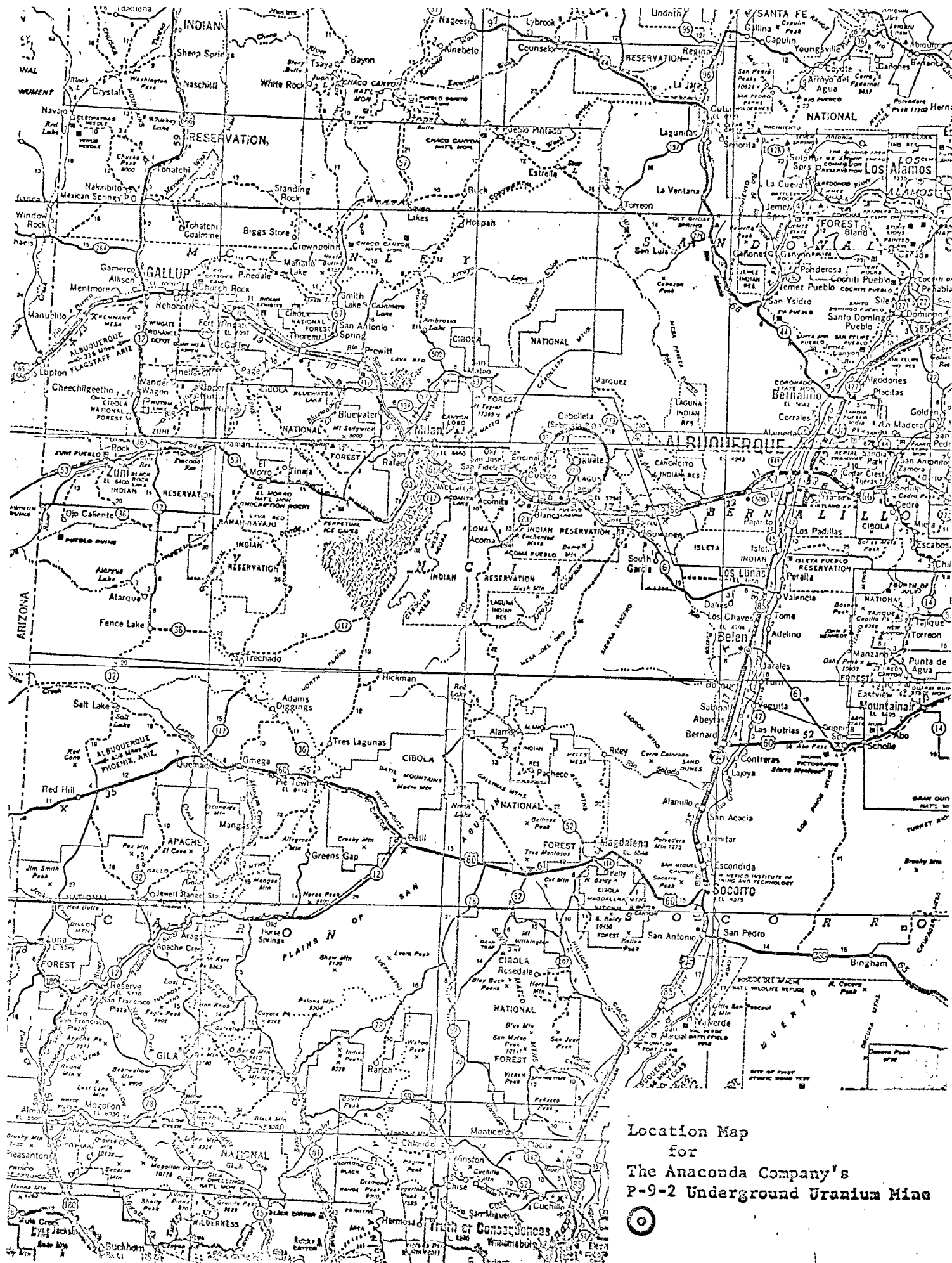
# SUMMARY OF ENVIRONMENTAL IMPACT EVALUATION

## PROPOSED MINING PLAN for THE ANACONDA COMPANY'S P-9-2 UNDERGROUND URANIUM MINE VALENCIA COUNTY, NEW MEXICO

### PROPOSED ACTION

		Construction	Pollution	Exploration or Mining	Transport Operations	Accidents	Other
Existing Conditions:		Roads, bridges, airports, railroads Transmission lines, pipelines Dams and impoundments Structures (mine buildings, etc.) Others Burning, noise, dust Liquid effluent discharge Solid waste control and disposal Others (toxic gases, noxious gases, etc.) Exploration (drilling, trenching) Surface Excavation (tunnel, stripmining, etc.) Storage (product, waste, spoil Mineral processing (ext. facilities) Others Trucks, railroads Pipelines, conveyors Others Spills and leaks, explosions Landslides Operational failure					
Land Use	Forestry						
	Grazing						
	Wilderness						
	Agriculture						
	Residential - Industrial						
	Mineral Extraction			/			
	Oil and Gas						
	Recreation						
	Scenic Views						
	Parks, Reserves						
	Monuments						
	Historical Sites						8 miles
	Unique Physical Features						
Phy. Charact. Flora & Fauna	Birds						
	Land Animals						
	Fish						
	Endangered Species						
	Trees, Grass, Etc.	X		X			
	Surface Water			X	/		
	Underground Water						
	Air Quality	/	/				
	Erosion						
	Other						
	Effect on Local Economy			/			
	Safety and Health			/			
	Others						







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DEC 12 1973

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS

U. S. Geological Survey  
Carlsbad, N. M.

Southern Pueblos Agency  
P.O. Box 1667  
1000 Indian School Road, N.W.  
Albuquerque, New Mexico 87103

IN REPLY REFER TO:

Real Prop. Mgmt.

DEC 7 1973

Mr. R. S. Fulton, Area Mining Supervisor  
Attention: Mr. Philip B. Mudgett, Mining Engineer  
U. S. Geological Survey  
P. O. Box 1716  
Carlsbad, New Mexico 88220

Dear Mr. Fulton:

Enclosed is a copy of Laguna Tribal Resolution No. 62-73, adopted November 29, 1973, approving mining plan designated as P-9-2, Adit Mine Project, submitted by Anaconda Company on September 18, 1973, and authorizing the Superintendent to advise the Mining Supervisor, U. S. Geological Survey, to approve said plan.

This office approves the subject plan and recommends that the U. S. Geological Survey take the necessary action to approve the plan also.

Sincerely yours,

ACTING

*Mark J. Sturges*  
Superintendent

Enclosure

RESOLUTION 62-73

At a duly called meeting of the Council of the Pueblo of Laguna, held on the 29<sup>th</sup> day of NOVEMBER, 1973, the following resolution was adopted:

WHEREAS, the Laguna Tribal Council has reviewed the Anaconda Company's mining plan designated as P-9-2, Adit Mine Project, dated September 18, 1973, and

WHEREAS, the Council also has reviewed the Environmental Appraisal Report prepared by the Agency Environmental Assessment Committee, dated October 26, 1973.

NOW, THEREFORE, BE IT RESOLVED that the Council of the Pueblo of Laguna approves the mining plan designated P-9-2, and authorizes the Superintendent, Southern Pueblos Agency, to advise the Mining Supervisor, U.S. Geological Survey, to approve said plan.

Louis A. Bueh  
Governor

ATTEST:

Allen Alonzo  
Member of Council

Monte F. Paul  
Secretary

Philip S. Ahnle  
Member of Council

CERTIFICATION

I hereby certify that the foregoing resolution was duly adopted at a meeting of the Pueblo of Laguna Council, held on the 29<sup>th</sup> day of NOVEMBER, 1973, at which a quorum was present, 20 voted for and 0 opposed.

Louis A. Bueh  
Governor

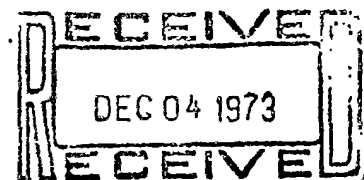
ATTEST:

Monte F. Paul RECEIVED

DEC 12 1973

U. S. Geological Survey  
Carlsbad, N. M.

B.I.A. SOUTHERN PUEBLOS AGENCY



TRIBAL OPERATIONS  
ALBUQUERQUE, NEW MEXICO

copies  
12-4-73



# United States Department of the Interior

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GEOLOGICAL SURVEY

DEC 12 1973

Drawer 1857  
Roswell, New Mexico 88201

December 10, 1973

U. S. Geological Survey  
Carlsbad, N. M.

## Memorandum

To: Area Mining Supervisor, Carlsbad, New Mexico  
Through: Area Geologist, Roswell, New Mexico

From: Geologist, Roswell, New Mexico

Subject: Geology of sec. 4, T. 10 N., R. 9 W., N.M.P.M., New Mexico -  
location of the Anaconda Company "P-9-2 Adit Mine Project".

The subject area is valuable for oil and gas, but the nearest production is about 50 miles to the north. No oil wells of record have been drilled in section 4. The land is not valuable for coal, but there may be coal in the Dakota Formation, at depth.

Structure.--The rocks in this section dip to the east. The structure lines shown on the geologic map (attached) are drawn on the Dakota Formation. The dip is about 1,000 feet per mile, or about 10 degrees. No major faults have been noted.

Ground water.--The principal aquifers which may be encountered are the Westwater Canyon Member of the Morrison Formation, the Dakota Sandstone and alluvium (and basalt if present). The water of best quality is in the Alluvium and basalt to the west of this area. Mining will probably not affect the quality of ground water since the main source of good water comes from the San Andres Formation which is below the mine area. (See south of).

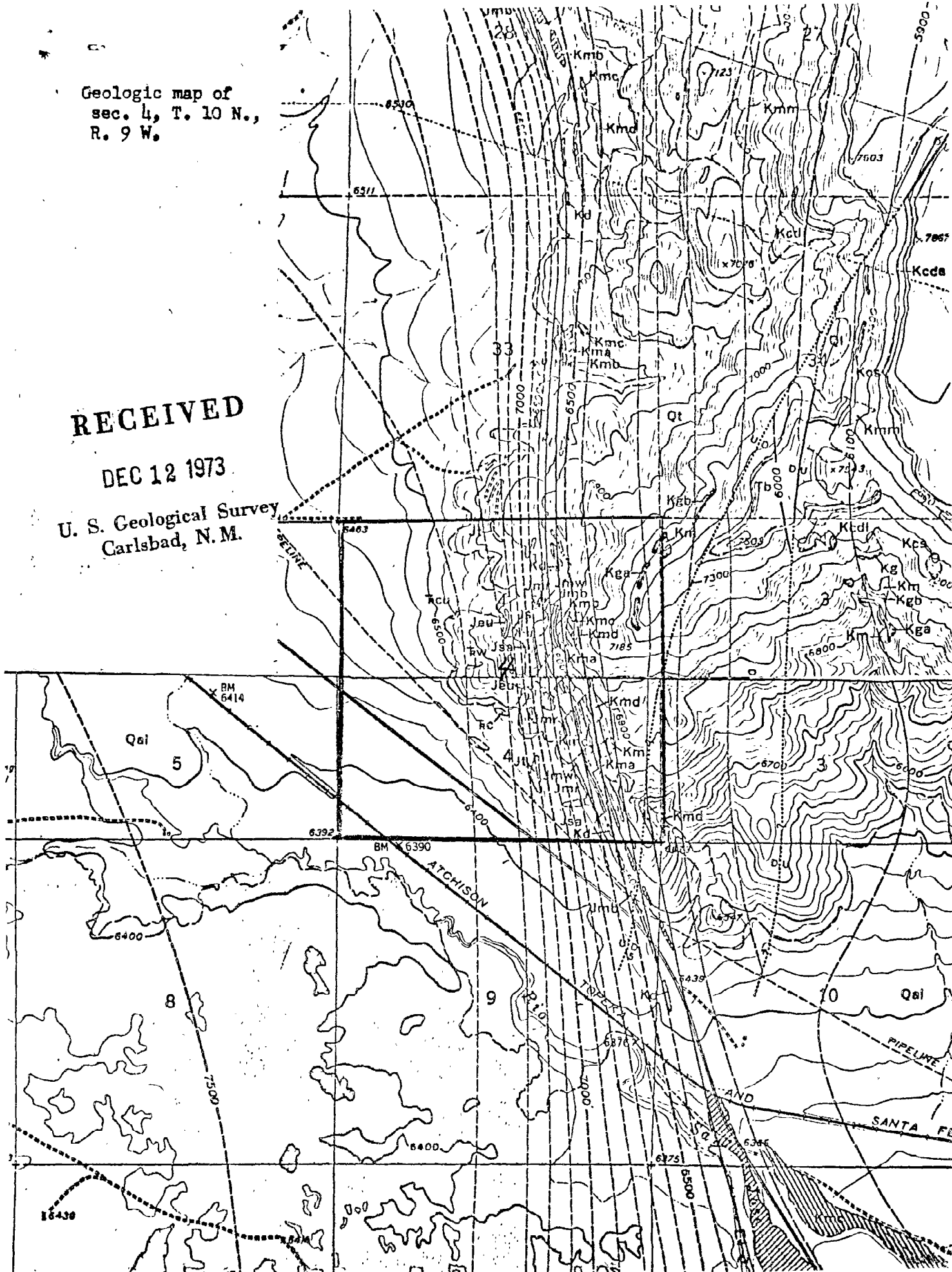
Drainage.--Drainage is south to the Rio San Jose.

## References:

NMBM Memoir 15, page 219 (water)  
U.S. Geol. Survey map GQ 681  
U.S. Geol. Survey map GQ 682

*Elmer D. Patterson*  
Elmer D. Patterson

U. S. Geological Survey,  
Carlsbad, N. M.



## GEOLOGIC COLUMN

### Upper Cretaceous rocks.

#### Mancos Shale.

- Kmm - Mulatto Tongue  
Shale and sandstone,  
210 to 240 feet thick.
- Km - Main body of Mancos Shale.  
Shale and sandstone. Inter-  
fingers with Gallup Sandstone  
20 to 450 feet thick.
- Kmd - 80 to 120 feet sandstone  
and shale.
- Kmc - 60 to 100 feet. "
- Kmb - 60 to 100 feet "
- Kma - 20 to 40 feet "

### Lower Cretaceous rocks.

- Kd - sandstone and shale with  
some coal beds.  
40 to 70 feet thick.

### Upper Jurassic rocks.

- Jmb - Brushy Basin Member of  
Morrison Fm. Sandstone  
40 to 120 feet thick.
- Jmw - Westwater Canyon Member -  
sandstone- 40 to 110 feet.
- Jmr - Recapture Member - siltstone  
and sandstone. 20 to 130 ft.
- Jsa - Yellow Sandstone - (Zuni-Bluff,  
of Cow Springs) sandstone.  
320 to 340 feet.
- Js - Summerville Formation, sandstone,  
siltstone, and claystone. 60  
to 140 feet thick.
- Jt - Todilto Limestone. 10 to 40 ft.
- Jeu - upper sandy member of Entrada  
Sandstone.
- Jem - medial silty member of Entrada.  
about 40 ft.

### Upper Triassic Rocks.

- Trw. Lukachukai Member of Wingate  
Sandstone. 100 to 115 ft.
- Trcu-Upper member of Chinle Fm.  
Siltstone and limestone.  
330 feet.
- Trcm.-Middle member - siltstone,  
Trcs-Sonsela Sandstone bed of Petrified  
Forest Member, sandstone and  
claystone.
- Trcl-Lower member of Chinle Fm.

### Mesaverde Group

#### Crevasse Canyon Fm.

- Kcg-Gibson coal mbr.
- Kda-Dalton Sandstone mbr. 125 ft.
- Kcs-Stray sandstone mbr. 35-50 ft.
- Kdi-Dilco Coal mbr. 150-180 ft.
- Kg-main body of Gallup Sandstone  
25 to 50 ft.
- Kgb-upper tongue. 25 to 65 ft.
- Kga-lower tongue. 10 to 35 ft.



United States Department of the Interior  
GEOLOGICAL SURVEY

P.O. BOX 1716  
CARLSBAD, NEW MEXICO 88220

IN REPLY  
REFER TO:

September 21, 1973

COUNTY CLERK

Valencia County, New Mexico

Mrs. Patty G. Armijo

Los Lunas, New Mexico 87037

Dear Mrs. Armijo:

Enclosed is a public notice listing this week's new mining plans and/or significant revisions to previous mining plans. We suggest these notices be posted in some prominent place for public viewing and that local news media be advised of their availability in your office.

Sincerely yours,

*Philip B. Mudgett*

Philip B. Mudgett  
Mining Engineer  
for R. S. Fulton  
Area Mining Supervisor

NEW MINING PLANS OR MAJOR MODIFICATIONS OF EXISTING PLANS  
SUBMITTED FOR APPROVAL

Release Date Sept. 21, 1973

<u>Date</u>	<u>Lessee or Operator</u>	<u>Lease Number</u>	<u>Location</u>	<u>County</u>	<u>State</u>
9/20/73	The Anaconda Co.	Laguna # 4	T. 10 N., R. 5 W., Valencia Co., N. Mexico Sec. 4 & 5		

A copy of the plan may be reviewed at the office location given below. Pertinent comments are solicited from anyone affected by this proposal. Such comments should be filed within 30 days from the date of this release. Response timely filed will be considered in the preparation of the environmental analysis. Responses should be addressed to the mining supervisor at the following address:

Area Mining Supervisor  
Conservation Division  
U. S. Geological Survey  
Federal Building  
114 South Halaguano  
P. O. Box 1716  
Carlsbad, New Mexico 88220



September 21, 1973

**Memorandum**

**To:** Kenneth L. Payton, Superintendent,  
Southern Pueblo Agency, Albuquerque, New Mexico

**From:** Area Mining Supervisor  
Carlsbad, New Mexico

**Subject:** The Anaconda Company's proposed mining plan for its "P-9-2 Adit Mine Underground Project" on Laguna Tribal uranium mining lease No. 4

As required under the provisions of 30 CFR Part 231.10(c), The Anaconda Company submitted a proposed mining plan for its "P-9-2 Adit Mine Underground Project" to us on September 19, 1973. We have examined the plan and find it to be satisfactory.

Two copies of the plan with accompanying maps are inclosed for review by you and the Laguna Tribal Council.

From the plan, it appears that any adverse effect upon the environment will be negligible.

If the plan satisfactorily provides for the protection of the nonmineral reserves and for the reclamation of the surface of the affected lands, as required by the lease terms, please let us know as soon as you can.

Philip B. Mudgett  
Mining Engineer  
for Area Mining Supervisor

PBM:nb

# THE ANACONDA COMPANY RECEIVED

P. O. BOX 638, GRANTS, NEW MEXICO 87020

SEP 19 1973

NEW MEXICO OPERATIONS  
A. J. FITCH  
MANAGER



U. S. Geological Survey  
Carlsbad, N. M.

September 18, 1973

U. S. Geological Survey  
P. O. Box 1716  
Carlsbad, New Mexico 88220

Attention: Mr. R. S. Fulton, Area Mining Supervisor

Gentlemen:

We are herewith submitting for approval a mining plan covering a proposed underground operation to be known as "P-9-2 Adit Mine Project".

The site is located within the boundaries of "Lease 4" held by The Anaconda Company and granted by The Pueblo of Laguna and lies within Section 4, T. 10 N., R. 9 W.

This application is being made in order to conform with regulations as set forth in the Code of Federal Regulations, Title 30 - Mineral Resources, Geological Survey, Part 231.10 (c) and also Section 102 (2) (c) of the National Environmental Protection Act of 1969.

## Description of Operation

The purpose of the proposed activity is to extract ore as a scam-type operation with three different adits being located within the confines of a small, mined out open pit known as the P-9-1. Adits 1 and 2 will be driven to the south and Adit 3 will afford access to the west of the P-9-1 area.

The ore bodies, located along the fringes of more concentrated ore zones, are weak and sporadic and as a consequence, are not attractive to extraction by open pit methods.

Indicated ore reserves are 58,000 tons although additional drilling prior to the commencement of Adits numbered 2 and 3 could add or subtract from that figure. It is expected that the life of the operation will be from 1 to  $1\frac{1}{2}$  years from the scheduled starting date, November 1, 1973.

Enclosed are 5 prints each of

- (1) Jackpile-Paguate P-9-2 Area, Orebody Map, Scale 1" = 50'
- (2) Jackpile-Paguate P-9-2 Area Orebody Map showing relationship between orebodies, the P-9-1 open pit, haul roads and surface contours, Scale 1" = 50'.

These maps show the underground plan, location of ventilation shafts, detail of the P-9-1 pit, existing haul roads, etc.

#### Mining Plans

Adit 1 will be driven approximately 900 feet at the level of "A" zone ore and through reserve blocks A-4-1, A-4-5 and A-4-6. Ore will be extracted by longwall methods, retreating from the end of the drift and toward the portal.

Adit 2 will be driven at a minus grade in order to reach the level of "B" zone ore. Ore blocks A-4-2, A-4-3 and A-4-4 will be developed and mined through short raises from the haulage level. Stoping will be by sub-level mining with slushers being utilized. Reserve blocks B-1-1 and B-2-1 will be mined by longwall.

Adit 3 will also be established at a minus grade so that the haulage drift will be approximately 20 feet below "B" zone ore. Sub-level mining through raises will be utilized.

In most instances mining will be accomplished by conventional drilling and blasting. Whenever possible drifting will be done by Alpine Miner, loaders and underground trucks. Ground support will be maintained by standard practices, viz: by utilizing rock bolts, netting, steel and/or timber sets, stulls and, possibly, cribbing. No surface subsidence is anticipated.

Surface Layout

All buildings such as: office, storage building, oil shed and the like will be of temporary nature and will be moved at the end of the operation. Power will be generated at the site by portable equipment.

Environmental Impact

No new roads will be required with the exception of one (access to ventilation shaft No. 1, approximately 200 feet long by 15 feet wide). Service to adits, etc. will be by the presently existing pit roads and ramps.

Two ventilation shafts are to be drilled during the mining operations with the location of each indicated on the accompanying maps. No. 2 vent shaft will be within present pit excavation so there will be no surface damage from that source and Number 1 will be bulkheaded and filled upon completion of the operation.

About 23,000 tons of waste are expected to be extracted and this material will be placed in the abandoned P-9-1 pit. Likewise, any mine water encountered will be impounded in that area.

As stated previously there should not be any surface subsidence as ore bodies are expected to be sporadic and small. All mine openings will be sealed in accordance with regulations at the end of mining.

General

You will note that our scheduling for this project calls for commencement of the operation by November 1, 1973.

In view of the fact that adits, dumps and mine waters are to be confined within an existing, abandoned pit it is hoped that we can obtain approval to proceed with a minimum of delay. Your assistance in this regard will be greatly appreciated.

Very truly yours,



A. J. FITCH, Manager

AJF:hr  
Enclosures